



GOVERNMENT OF ROMANIA



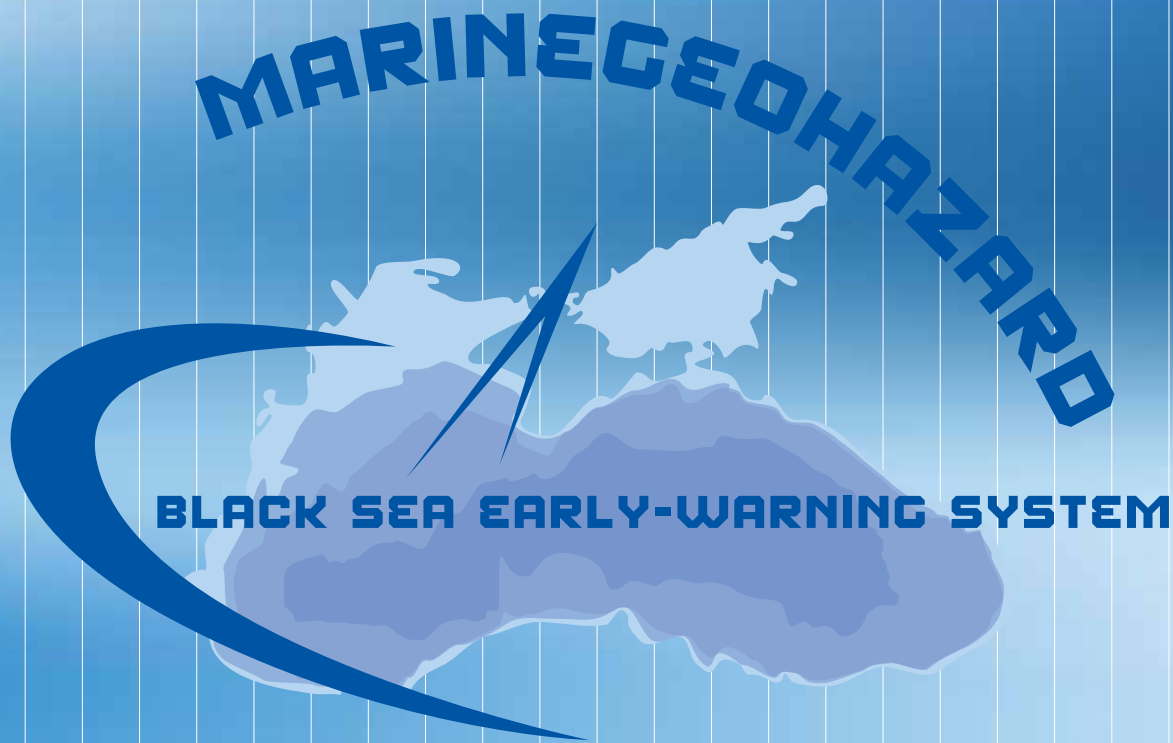
GOVERNMENT OF BULGARIA



Common borders. Common solutions.

MARINE GEOHAZARD

Set-up and implementation of key core components of a regional early-warning system for marine geohazards of risk to the Romanian-Bulgarian Black Sea coastal area



www.geohazard-blacksea.eu

In this issue:

- MARINEGEOHAZARD, the end and beginning of the year
- NEWSLETTER INTERVIEW:
MARINEGEOHAZARD, an integrated real time warning system in case of marine geo-hazards, interview with Eng. Constantin IONESCU, PhD, General Director of the National Research Development Institute for Earth Physics, Bucharest, Romania
- MARINEGEOHAZARD in the press

MARINEGEOHAZARD, the end and beginning of the year.

The implementation of the activities stipulated in the objective achievement plan of project MARINEGEOHAZARD, for Q4 of 2011, involved all partners of the consortium, respectively the National Research Development Institute for Marine Geology and Geoecology - GeoEcoMar, Romania, the project coordinator, the Institute of Oceanology of the Bulgarian Academy of Science - IO-BAS, the Geological Institute of the Bulgarian Academy of Science - GI-BAS and the National Research Development Institute for Earth Physics - NIEP.

During October 2011, the second meeting of the

Steering Committee of the MARINEGEOHAZARD project took place in Varna, at the headquarters of the Institute of Oceanology of the Bulgarian Academy of Science - IO-BAS. The directors of the partner institutions participated in the meeting, that is eng. Gheorghe OAIE PhD, NRD I GeoEcoMar and eng. Constantin IONESCU PhD, NIEP - Romania, respectively prof. Atanas PALAZOV, IO-BA and Doncho KARASTANEV PhD, GI-BAS - Bulgaria. The technical coordinator of the project, prof. Nicolae PANIN PhD, the project officer Mrs. Gyongyi RUZSA, the financial officer Mrs. Ana OLTEANU, and some of the persons in charge of the project activities (Orlin DIMITROV PhD, IO-BAS, Bulgaria and Radu DIMITRIU PhD, NRD I GeoEcoMar) also took part in the meeting.

Gheorghe OAIE PhD (NRD I GeoEcoMar), in his capacity of project manager, presented the phase of project implementation, stressing on the deviations from the achievement plan. The most delicate matter was the resuming of the auction for the procurement of the equipment lots 1 - 3 and 5. It was decided the documentation should be reviewed so that it becomes attractive for companies that might participate in the future auction. It was suggested that a possible timeframe for the new auction would be the second half of the month of January 2012, after the approval of the new technical documentation by the partners, as elaborated by the project coordinating partner.

In the same context, the payment modality for the procurement of equipment was discussed with the directors of the partner institutions from Bulgaria, who pointed out certain financial difficulties and the necessity to consult with the coordinating body,

respectively the Bulgarian Academy of Science, in finding a solution.

Within the same meeting, the responsible of Activity 4, Mr. Radu DIMITRIU PhD (INCD GeoEcoMar), gave a presentation of the “Proposal regarding the structure of the Romanian - Bulgarian geodatabase”, insisting on the structure hereof and the delegation by the partners of certain persons who would effectively work to the structure thereof.

It was also during October that the First Level Control of the Management Authority for CBC Romania - Bulgaria projects took place. The documents necessary to the elaboration of the reimbursement request no. 3 for the MARINEGEOHAZARD project were checked.

Simultaneously, the Regional Cross-Border Cooperation Office at Calarasi organized in Pleven, Bulgaria, a work meeting for the institutions of Romania and Bulgaria, involved in cross-border cooperation projects. Mrs. Gyongyi RUZSA, in her capacity of project officer, representing NRD GeoEcoMar participated in the meeting.

Later, at the headquarters of NRD GeoEcoMar in Bucharest, the General Director of the institution, Mr. Gheorghe OAIE PhD, in his capacity of project manager of MARINEGEOHAZARD, together with prof. Nicolae PANIN, technical coordinator thereof, had a meeting with Mr. Paolo FAVALI PhD, representing the European Multidisciplinary Seafloor and Water-column Observatory - European Research Infrastructure Consortium (EMSO-ERIC), within which Mr. Favali manifested his interest in the project, pointing out the fact that for EMSO-ERIC it is particularly important that MARINEGEOHAZARD becomes operational. In this regard, Mr. Favali submitted a

support letter to the Romanian authorities, in order to sustain the project implementation.

At the end of the month of October, STC Calarasi organized a work meeting with the institutions implementing CBC Romania - Bulgaria projects, regarding the application of the instruction number 41, concerning the disbursements. NRD GeoEcoMar was represented in this meeting by Mrs. Ana OLTEANU, financial office of MARINEGEOHAZARD project and Mrs. L. GRIGORE, human resources inspector within the institute.

During December 2011, the Bulgarian partners, the Institute of Oceanology of the Bulgarian Academy of Science - IO-BAS and the Geological Institute of the Bulgarian Academy of Science - GI-BAS organized in Varna, Bulgaria, the first meeting within the MARINEGEOHAZARD project with the potential direct beneficiaries of the information that shall be obtained after the commissioning of the Euxinus and GeoPontica networks. Within this reunion, the management of the MARINEGEOHAZARD project was represented by the technical coordinator hereof, prof. Nicolae PANIN PhD. Due to the importance and amplitude of the project MARINEGEOHAZARD was presented in detail in the Bulgarian press, some of the interviews given by prof. Panin (NRD GeoEcoMar), prof. Palazov and Mr. Dimitrov PhD, representing IO-BAS, being taken over by the Romanian mass media.

At the end of 2011, the periodic report of the MARINEGEOHAZARD project was handed over to the Regional Cross-border Cooperation Office in Calarasi.

NEWSLETTER INTERVIEW

MARINEGEOHAZARD, an integrated real-time warning system for marine geohazards, interview with Eng. Constantin IONESCU PhD, General Director of the National Research Development Institute for Earth Physics, Bucharest, Romania



Question: How would you characterize, from the point of view of the seismic hazard, the Black Sea area?

Answer: When we talk about the Black Sea area, we should clearly distinguish between the littoral area and the marine one. It is necessary to take into account this delimitation

because there are amplitudes specific to the seismic hazard, such as the macroseismic intensity, which make no sense offshore. The shore area of the Black Sea is characterized by macroseismic intensities with values contained between IV $\frac{1}{2}$ and IX $\frac{1}{2}$ degrees on the Mercalli scale, obtained for 475 year-recurrence periods, depending on the seismic sources affecting them. For instance, the IX degree-intensity is obtained in the area of the Romanian and Bulgarian seashore following the intermediate earthquakes of Vrancea and due to the crustal earthquakes occurred in the Shabla seismic source. VII-VIII degree-values also appear in the area of the Turkish seashore (VII degrees - due to the earthquakes caused by the Istanbul seismic source and VIII degrees on the north-Anatolian fault). For the rest, the values of the maximal possible intensities obtained following the probabilistic seismic hazard studies do not exceed VI degrees on the Mercalli scale. Taking into account that these intensities were calculated for a 475 year period of earthquake exposure, we can say that the probability of exceeding these values in 50 years is of 10% respectively of 0.2% per year. Regarding the marine area, this can be characterized only from the point of view of the maximal expected magnitudes, without the possibility of talking about macroseismic intensities at the sea water level. The maximal expected magnitude in the Black Sea area is given by the Shabla seismogeneous zone ($M_w=7.2$). $M_w>6.0$ values are also

expected in the seismogenic areas of Istanbul, Crimea and the north-Anatolian fault. The other seismic sources are characterized by smaller magnitudes with values contained between 4.0 and 5.5. These magnitudes indicate the tsunami potential of the seismic sources existing in the Black Sea.

Question: Are there real-time warning systems for other seismic areas of the Black Sea type?

Answer: Yes, there are. Japan is the best example one can give regarding the monitoring of earthquakes in the Pacific and the warning as for the imminence of the occurrence of a tsunami. The pressure sensors that shall be used for the monitoring of the Black Sea coast are of the same type with those used in Japan for the real-time monitoring of the tsunami values.

Monitoring systems for preventing events with dangerous potential of the type of the system that shall be installed on the Black Sea coast also exist at present in the Mediterranean and on the European Atlantic coasts. From the point of view of the National Research Development Institute for Earth Physics, we consider these warning systems are useful for the countries where the earthquake risk is high, helping at protecting installations and the population in case of strong earthquakes.

Question: Do earthquakes in the Vrancea region have a considerable influence on the

Black Sea, from the point of view of the seismic hazard?

Answer: Yes. Even if the distance to the epicentral area exceeds 100 km, the Vrancea earthquakes have a considerable influence on the Black Sea littoral. As shown above, for the Romanian and Bulgarian littoral, the Vrancea earthquakes are those which created the highest expected macroseismic intensity (IX), comparable to that associated to local, crustal earthquakes of the Shabla area.

Question: How important is for the institution you are running the involvement in the MARINEGEOHAZARD project?

Answer: For the National Research and Development Institute for Earth Physics (NIEP) MARINEGEOHAZARD project represents another step forward in applying and implementing the research undertaken in the field of earth physics. Through the MARINEGEOHAZARD project, NIEP will develop the material base it owns at present and will be able to contribute with more complete data in the assessment of the seismic hazard in the Black Sea area. Through the MARINEGEOHAZARD Project, NIEP will also be able to develop new methodologies regarding the development of earthquake warning systems for the critical installations in the region of Dobrogea as this project will contribute with new data to the systems we are developing in order

to assess the seismic risk.

With the data obtained by means of the MARINEGEOHAZARD project, NIEP will contribute with information to the “Tsunami Information Centre for the North-eastern Atlantic and the Mediterranean and connected seas-NEAMTIC”, center which is meant to be an integral part of the Intergovernmental Oceanographic Commission (IOC) for warning and attenuation of the tsunami that can occur in this region. NEAMTIC was founded by the Intergovernmental Coordination Group for early tsunami warning for the North-eastern Atlantic, the Mediterranean and the connected seas (ICG / NEAMTWS), with the financial support of the European Commission and the General Direction for Civil Protection (DG ECHO).

MARINEGEOHAZARD in the press

ADEVĂRUL, Tsunami warning sensors will be installed on the Romanian littoral (5 December 2011),

http://www.adevarul.ro/actualitate/Senzori_de_alerta_pentru_tsunami_vor_fi_instalati_pe_litoralul_romanesc_0_603540255.html

COTIDIANUL, Romania and Bulgaria will have tsunami warning sensors (6 December 2011), <http://www.cotidianul.ro/romania-si-bulgaria-vor-avea-senzori-de-alerta-pentru-tsunami-166130/>

MEDIAFAX, Tsunami warning sensors, on

the Romanian and Bulgarian coastal areas (5 December 2011),

<http://www.mediafax.ro/externe/senzori-de-alerta-pentru-tsunami-in-zone-de-coasta-din-romania-si-bulgaria-9030808/>

REALITATEA.NET, Tsunami warning sensors, on the Romanian coastal areas (5

December 2011), http://www.realitatea.net/securitate-senzori-de-alerta-pentru-tsunami-in-zone-de-coasta-din-romania_892749.html

REPLICA ONLINE, the Romanian and Bulgarian coastal areas, on the Romanian and Bulgarian coastal areas (6 December

2011), <http://www.replicaonline.ro/senzori-de-alerta-pentru-tsunami-in-zone-de-coasta-din-romania-si-bulgaria-43436/>

REPORTER NTV, On the Romanian and Bulgarian littoral, tsunami warning sensors

will be installed (6 December 2011),

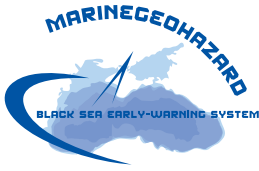
<http://www.reportermtv.ro/stire/pe-litoralul-romanesc-si-bulgaresc-al-marii-negre-vor-fi-instalati-senzori-de-alerta-pentru-tsunami>

ZIARE.COM, Tsunami warning sensors on the coasts of Romania and Bulgaria (5 December 2011),

<http://www.ziare.com/stiri/cutremur/senzori-de-alerta-pentru-tsunami-pe-coastele-romaniei-si-bulgariiei-1137976>

RADIO ROMÂNIA INTERNAȚIONAL, telephone interview given by Gheorghe Oaie PhD, Project Manager of MARINEGEOHAZARD, regarding the MARINEGEOHAZARD project (9 January 2012, time 14:00 hours)

PRESS INTERVIEWS, BULGARIA: Interview with Prof. Nicoleae Panin, Associate Professor Orlin Dimitrov Phd and Associate Professor Atanas Palazov Phd, regarding the project MARINEGEOHAZARD, published



Set-up and implementation of key core components of a regional early-warning system for marine geohazards of risk to the Romanian-Bulgarian Black Sea coastal area

by "Trud" and "24 Chasa" magazines, on 12.06.2011

Interview about the MARINEGEOHAZARD project given by Associate Professor Orlin Dimitrov Phd, to the "Cherno More" newspaper, on 06/01/2012

TELEVISION BROADCASTING, BULGARIA: BTV, TV 7, BNT 2, TV Varna, 5. XII. 2011, 9. XII. 2011; 14.XII.2011 interviews with Associate Prof. Orlin Dimitrov Phd about MARINEGEOHAZARD project



www.geohazard-blacksea.eu

Investing in your future!

Romania-Bulgaria Cross Border Cooperation Programme 2007-2013 is co-financed by the European Union through the European Regional Development Fund

Project title:

Set-up and implementation of key core components of a regional early-warning system for marine geohazards of risk to the Romanian-Bulgarian Black Sea coastal area

Editor of the material: NRD GeoEcoMar

Date of publishing: 27-02-2012

The content of this material does not necessarily represent the official position of the European Union

www.cbromanianbulgaria.eu